

# Dressing and Economic in the Cultivation of Tomatoes in Greenhouses Simple and Kidroponics Method Efficiency

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## ABSTRACT

in the article, the period of ripening of the tomato crop grown by irrigation methods in the experimental area, the average of 4,5 kg/m<sup>2</sup> in the simple greenhouse variant, in which the method of irrigation was applied during the season, the yield of 14,5 kg/m<sup>2</sup> in tomatoes grown with the support of the method of hydroponics, the yield of 510 million soums, 6360 soums/kg, the profitability rate was 57%.

**KEYWORDS:** *experimental area, irrigation methods, sample greenhouse, options, tomato cultivation, soil nutrients*

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Agriculture has developed in the countries of the Netherlands, Israel, South Korea, Japan, the United States, Germany since the end of the last century, the cultivation of vegetable products in special greenhouses by the method of kidroponics has been established.

Gidroponics- (gidroponics is the Greek word "gidro"-water, "ronos"-worker, has the content of "aqueous working solution") is the cultivation of agricultural crops with the help of water-soluble nutrients in specially ground-free conditions.

In the experimental area, the tomato crop grown by irrigation methods was determined by the terms during the ripening period. The results of the study are presented in Table 1. The data of this table show that the average yield of 4,5 kg/m<sup>2</sup> of tomatoes was obtained in a simple greenhouse variant, in which the method of roughing irrigation was used

throughout the whole season, and in tomatoes grown with the support of the method of hydroponics 14,5 kg/m<sup>2</sup> of tomatoes.

In the gidroponics method, the yield of tomatoes should be more than 10 kg/m<sup>2</sup> compared to the ordinary greenhouse, in which the irrigation method is used, favorable conditions for the growth, development of tomatoes in this method (the norms of irrigation are reduced, the number of irrigation increases, mineral fertilizer macro and micro fertilizers with water throughout the season) are created in

When the brand status of the tomatoes grown in the experimental area (Option 1) was studied, tomatoes grown in the method of gidroponics (option 2) were 99,0%, and tomatoes with a high commodity quality 96,0% were grown in the method of cultivated irrigation.

**Table 1 Yield of tomatoes in the experimental area, kg/m<sup>2</sup>**

Irrigation method	Repetitions			Average	Brand status, %
	I	II	III		
Rut irrigation	17,3	16,5	15,6	16,5	96,0
Drip irrigation	20,8	20,6	20,4	20,6	99,0

Economic efficiency of tomatoes grown on the experimental field.

When determining the economic efficiency of tomato irrigation methods grown in the experimental area, the total costs for the cultivation of the product (go to heat the greenhouse yoq (gas) cost is 160 million rubles. sum, electricity 30 million., plant

protection products from pests and insects amounted to \$ 15 million. purchase of seedlings 40 million. for fertilizers in rut irrigation, the expenditure is 21 million soums, the current expenditure is 80 million soums. expenses for fertilizers by drip irrigation method are 20 million soums, current expenses (film, repair, salary, taxes 120 million soums. sum.) 346 million soums/hectare in the method of irrigation, 265 million soums/hectare in the method of hydroponics.

The selling price of the product was 10000 (8000-12000 soums/kg) soums/kg on average in 2020-2021 yy. Then, the total revenue from the sale of the product amounted to 720 million soums in a simple greenhouse cultivation method and 2,240 billion soums in a hydroponics method.

The net profit obtained is 374 million soums, tannarx 7688 soums/kg, profitability rate 34% in the irrigation method of ordinary greenhouse rut. Net profit in the method of kidroponics was 596.5 million soums and the level of profitability was 464%.

**Table 2 Economic efficiency of tomatoes grown in the experimental area**

Irrigation method	Productivity, kg/ha	Total costs of production, million soums / ha	Daaromad from the sale of the product, million / sum / ha	Net profit, million / sum / ha	Costkg / sum	Profitable, %
In an ordinary green house	45000	346	450	104	7688	30
In the method of gidroponics	140000	890	1400 млрд	510	6360	57
In the method of kidroponics (after the reimbursement of banking expenses )	140000	265	1400 млрд	1135	1900	428

Note: 500 thousand US dollars-spent for capital expenditure. Each year, 625 million soums should be covered. If the net profit is 1,135 billion soums, we will deduct this year's share of capital expenditure. Result - 510 million soums.

## Conclusion

Norm of seasonal irrigation compared to the ordinary method of seasonal irrigation, it was determined that 2314 m<sup>3</sup>/ha or 41% was spent. In the method of hydroponics, the duration of the growth period of tomatoes was 95 days, while in ruminant watering was 106 days, and in both irrigation methods, the initial ripening period coincided with the last ten days of November.

In relation to the method of irrigation, the length of the soil was 6 times higher (188 cm in the irrigation of the soil, 12m in the method of hydroponics) than in the method of irrigation of the soil, the diameter of the soil was an average of 1.3 cm in irrigation and 2.2 cm in hydroponics.

The net profit from the cultivation of tomatoes in the standard greenhouse by the method of salting kidroponika amounted to 510 million soums, while the cost was 6360 soums / kg, the profitability rate was 57 %.

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